

## REMARKS

In view of the above amendments and the following remarks, reconsideration of the rejections contained in the Office Action of October 10, 2008 is respectfully requested.

By this Amendment, claims 6-10 have been amended and are currently pending in the application. No new matter has been added by these amendments.

On pages 2-3 of the Office Action, the Examiner rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Shintani (JP 11-080952) in view of Sakemi et al. (US 6,245,394). Further, on pages 3-4 of the Office Action, the Examiner rejected claims 7-8 under 35 U.S.C. § 103(a) as being unpatentable over Shintani in view of Sakemi, and further in view of Hirano et al. (US 2003/0030377). On pages 4-5 of the Office Action, the Examiner rejected claims 9-10 under 35 U.S.C. § 103(a) as being unpatentable over Shintani in view of Sakemi, and further in view of Okuyama et al. (JP 2001-243886). For the reasons discussed below, it is respectfully submitted that the amended claims are clearly patentable over the prior art of record.

Amended independent claim 6 recites a method for manufacturing a plasma display panel (PDP) including a process for forming a metal oxide film onto a substrate of the PDP. The method of claim 6 includes forming the metal oxide film in a deposition room having a degree of vacuum within a range of  $1 \times 10^{-1}$  Pa to  $1 \times 10^{-2}$  Pa. Further, the method of claim 6 includes maintaining the degree of vacuum by *introducing inert gas into the deposition room* during deposition of the metal oxide film, *reducing an oxygen deficiency in the deposition room by introducing oxygen into the deposition room* during deposition of the metal oxide film, *increasing the oxygen deficiency in the deposition room by introducing at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide into the deposition room* during deposition of the metal oxide film, *wherein the oxygen or the at least one gas is introduced into the deposition room in a predetermined amount, controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room, and equilibrating the amounts of the gasses introduced into the deposition room with an amount of gas exhausted from the deposition room by a vacuum exhausting system so as to control the oxygen deficiency in the deposition room within a predetermined range*.

Shintani discloses a vapor deposition method in which oxygen is introduced into the processing chamber. Further, Shintani discloses that an oxygen introduction amount and an

exhaust speed of the processing chamber are controlled such that the partial pressure of the oxygen becomes equal to a set value. However, as noted by the Examiner on page 3 of the Office Action, Shintani does not disclose a deposition room *having a degree of vacuum within a range of  $1 \times 10^{-1}$  Pa to  $1 \times 10^{-2}$  Pa*, as required by independent claim 6.

Further, Shintani also does not disclose *introducing inert gas into the deposition room during deposition of the metal oxide film, increasing the oxygen deficiency in the deposition room by introducing at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide into the deposition room during deposition of the metal oxide film, wherein the oxygen or the at least one gas is introduced into the deposition room in a predetermined amount, and controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room*, as required by independent claim 6.

Sakemi discloses a film growth method in which a degree of vacuum in the vacuum chamber is  $10^{-4}$  Torr ( $1.3 \times 10^{-2}$  Pa). Therefore, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to operate the process of Shintani under a degree of vacuum taught by Sakemi in order to arrive at the invention of claim 6. However, it is noted that Sakemi also does not disclose *increasing the oxygen deficiency in the deposition room by introducing at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide into the deposition room during deposition of the metal oxide film, wherein the oxygen or the at least one gas is introduced into the deposition room in a predetermined amount, and controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room*, as required by independent claim 6.

Accordingly, as none of the Shintani and Sakemi references discloses or suggests *increasing the oxygen deficiency in the deposition room by introducing at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide into the deposition room during deposition of the metal oxide film, wherein the oxygen or the at least one gas is introduced into the deposition room in a predetermined amount, and controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room*, as required by independent claim 6, it is respectfully submitted that the

combination of the Shintani and Sakemi references does not disclose or suggest *increasing the oxygen deficiency in the deposition room by introducing at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide into the deposition room during deposition of the metal oxide film, wherein the oxygen or the at least one gas is introduced into the deposition room in a predetermined amount, and controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room*, as required by independent claim 6.

In this regard, on pages 3 and 4 of the Office Action, the Examiner notes that Hirano discloses a method for forming a plasma display panel which includes forming an MgO film in a chamber having an atmosphere including hydrogen and oxygen. The Examiner therefore concludes that it would have been obvious to one of ordinary skill in the art to introduce hydrogen as suggested by Hirano to the oxygen atmosphere of Shintani. However, the combination of Hirano and Shintani does not disclose or suggest that the oxygen or the at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide is introduced into the deposition room in a predetermined amount, while controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room, as required by independent claim 6.

Further, on pages 4-5 of the Office Action, the Examiner notes that Okuyama discloses a method for forming an MgO film in which a mixture of oxygen and an inert gas is introduced into a vacuum chamber. The Examiner thus concludes that it would have been obvious to one of ordinary skill in the art to introduce inert gas as suggested by Okuyama to the oxygen atmosphere of Shintani. However, the combination of Okuyama and Shintani does not disclose or suggest that the oxygen or the at least one gas selected from the group consisting of water, hydrogen, carbon monoxide, and carbon dioxide is introduced into the deposition room in a predetermined amount, while controlling amounts of the inert gas and the other of the oxygen or the at least one gas to be introduced into the deposition room, as required by independent claim 6

Therefore, for the reasons presented above, it is believed apparent that the present invention as recited in independent claim 6 is not disclosed or suggested by the Shintani reference, the Sakemi reference, the Hirano reference and the Okuyama reference taken either individually or in combination. Accordingly, a person having ordinary skill in the art would

clearly not have modified the Shintani reference in view of the Sakemi reference, the Hirano reference or the Okuyama reference in such a manner as to result in or otherwise render obvious the present invention of independent claim 6.

Therefore, it is respectfully submitted that independent claim 6, as well as claims 7-10 which depend therefrom, are clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice to that effect is respectfully solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, the Examiner is respectfully requested to contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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